

### Amendments to the Specification

Please replace paragraph [0005] with the following amended paragraph:

[0005] However, the intensity of the horizontal electric field 18 decreases with a vertical distance far from the common electrode 15 and the pixel electrode 16. That is, the electric field intensity near the first substrate 11 is weaker than that near the second substrate 12. Thus a higher driving voltage is needed to make all the liquid crystal molecules 17 twisted. On the other hand, ~~direction~~ directions of the electric field 18 near the borders of the common electrode 15 and the pixel electrode 16 are not parallel to the surface of the second substrate 12. That is, not all long axes of the liquid crystal molecules 17 are aligned with the direction of the horizontal electric field 18. This results in a low open aperture ratio.

Please replace paragraph [0010] with the following amended paragraph:

[0010] FIG. 1 is ~~[[an]]~~ a schematic diagram illustrating the off state operation mode of an IPS-LCD according to a preferred embodiment of the present invention;

Please replace paragraphs [0012] and [0013] with the following amended paragraphs:

[0012] FIG. 3 is ~~[[an]]~~ a schematic diagram illustrating the on state operation mode of the IPS-LCD of FIG. 1;

[0013] FIG. 4 is ~~[[an]]~~ a schematic diagram illustrating the on state operation

mode of an IPS-LCD according to an alternative embodiment of the present invention; and

Please replace paragraph [0015] with the following amended paragraph:

[0015] FIG 1 shows ~~[[an]]~~ a schematic diagram illustrating the off state operation mode of an In Plane Switching liquid crystal display (IPS-LCD) 2 according to a preferred embodiment of the present invention. The IPS-LCD 2 ~~comprises~~ includes a first substrate 21, a second substrate 22, and a liquid crystal layer (not labeled) having a plurality of liquid crystal molecules 27. The first substrate 21 and the second substrate 22 are spaced apart from each other, and the liquid crystal layer is disposed therebetween. The first substrate 21 and the second substrate 22 are made ~~[[of]]~~ from glass. Alternatively, the first substrate 21 and the second substrate 22 ~~also~~ can be made ~~[[of]]~~ from Silicon Dioxide ( $\text{SiO}_2$ ).

Please replace paragraph [0017] with the following amended paragraph:

[0017] The polarization axes of the two polarizers 23, 24 are perpendicular to each other. The alignment film 200, whose alignment direction is parallel to the polarization ~~axe~~ axis of the polarizer 24, is used to align the liquid crystal molecules 27 of the liquid crystal layer. The common electrodes 25 and the pixel electrodes 26, which are made ~~[[of]]~~ from transparent conductive ~~materials~~ material, such as indium tin oxide (ITO) ~~and or~~ or indium zinc oxide (IZO), are strip-shaped. The common electrodes 25 and the pixel electrodes 26 are disposed at same intervals. An insulating film (not labeled) is formed between the common electrodes 25 and the pixel electrodes 26 for insulating the common electrodes 25 and the pixel electrodes 26. The insulating film is made ~~[[of]]~~ from

SiO<sub>2</sub> or Silicon Nitride (SiNx).

Please replace paragraph [0018] with the following amended paragraph:

[0018] Referring to FIG. 2, a cross-sectional view of the conductive spacer 29 is shown. The conductive spacer 29 ~~comprises~~ includes a spacer rib 291 and a conductive film 292. The spacer rib 291, ~~which is made~~ is made ~~[[of]] from glass~~ from glass, ~~has a preferable shape of~~ Preferably, the spacer rib 291 is parallelepiped-shaped, and even more preferably box-shaped. The conductive film 292 is made ~~is made~~ ~~[[of]] from~~ transparent conductive ~~materials,~~ material such as ITO, and is deposited on all ~~[[the]]~~ surfaces of the spacer rib 291. ~~So that~~ Thereby, the conductive spacers 29 are ~~contacted~~ in physical and electrical contact with the common electrodes 25 and the pixel electrodes 26. The conductive spacers 29 are perpendicular to the common electrodes 25 and the pixel electrodes 26, ~~then,~~ and spaces are thereby formed between the conductive spacers 29. ~~The height~~ Heights of the ~~spacer~~ conductive spacers 29 ~~[[is]]~~ are substantially equal to the thickness of the liquid crystal layer. Thus, when a voltage is applied across the common electrodes 25 and the pixel electrodes 26, an electric field parallel to the second substrate 22 is generated, ~~which distributes the electric field being~~ uniformly distributed between the first substrate 21 and the second substrate 22 ~~is generated.~~ Alternatively, the spacer rib 291 ~~[[is]]~~ can be made ~~[[of]] from~~ SiO<sub>2</sub>, and the conductive film 292 ~~[[is]]~~ can be made ~~of a~~ from metal.

Please replace paragraph [0019] with the following amended paragraph:

[0019] FIG. 1 illustrates an off state operation mode for the IPS-LCD 2. When there is no voltage applied across the common electrodes 25 and the pixel electrodes 26, the alignment direction of the alignment film 200 forms an angle

from a line perpendicular to the common electrodes 25 and the pixel electrodes 26~~[[,]]. the~~ The angle ~~[[is]]~~ can be 45 degrees, for example. Because the alignment direction of the alignment film 200 is parallel to the polarization direction axis of the polarizer 24, the long axes of the liquid crystal molecules 27 ~~[[is]]~~ are parallel to the polarization ~~direction~~ axis of the polarizer 24. Light beams from outside the polarizer 24 propagate through the polarizer 24, and then pass through the liquid crystal molecules 27 with no change in state of polarization state ~~change~~. ~~So that~~ Therefore the light beams ~~can't~~ cannot pass through the polarizer 23, ~~for~~ because the polarization state of the light beams is perpendicular to that the polarization axis of the polarizer 23. ~~Then~~ Accordingly, the IPS-LCD 2 displays black.

Please replace paragraph [0023] with the following amended paragraph:

[0023] In summary, the ~~IPS-LCD~~ IPS-LCDs 2, 3 according to the respective embodiments of the present invention have the following main advantages. First, the conductive spacers 29, 39 are formed on the common electrodes 25, 35 and the pixel electrodes 26, 36, so that the electric field 28, 38 ~~distribute~~ distributes uniformly between the first substrate 21, 31 and the second substrate 22, 32. Thus, all the liquid crystal molecules 27, 37 are twisted by the electric field 28, 38 without increasing the driving voltage. Second, the electric field 28, 38 ~~are~~ is substantially parallel to the second substrate 22, ~~[[23]]~~ 32 even in regions near the common electrodes 25, 35 and the pixel electrodes 26, 36. ~~So that~~ Therefore the long axes of all the liquid crystal molecules 27, 37 are aligned with the direction of the electric field 28, 38. This can enhance the aperture ratio of the IPS-LCD 2, 3.